

CLAIMS

1. A data transmission system comprising at least a transmitter having an adaptable sending rate, a transmission channel having a time varying capacity, and a receiver having data control means for detecting losses and feedback means for reporting said losses to the transmitter, said transmitter having probing means for probing the transmission channel by repeatedly raising its sending rate until a loss is reported by the receiver, characterized in that said receiver is designed to report a fake loss when the sending rate has risen to the current capacity of the transmission channel so as to force the transmitter to terminate said probing.
- 5
- 10 2. A data transmission system as claimed in claim 1, characterized in that said receiver is further designed to compute a received rate that is an estimation of the rate at which data are received, and to monitor the evolution of said received rate for deciding whether the sending rate has risen to the current capacity of the transmission channel.
- 15 3. A data transmission system as claimed in claim 1 or 2, characterized in that said transmitter comprises rate control means for dynamically adapting the sending rate to the current capacity of the transmission channel when said probing is terminated.
- 4.
- 20 25 4. A receiver intended to receive data sent by a transmitter at an adaptable sending rate through a transmission channel having a time varying capacity, said receiver having data control means for detecting losses and feedback means for reporting said losses to the transmitter, characterized in that, said sending rate is repeatedly raised for probing the transmission channel until a loss is reported by the receiver, said receiver is designed for reporting a fake loss when the sending rate has risen to the current capacity of the transmission channel so as to force the transmitter to terminate said probing.
- 5.
- 30 30 5. A receiver as claimed in claim 4, characterized in that it is further designed to compute a received rate that is an estimation of the rate at which data are received, and to monitor the evolution of said received rate for deciding whether the sending rate has risen to the current capacity of the transmission channel.

6. A rate control method to be used for transmitting data from a transmitter having an adaptable sending rate to a receiver designed for detecting losses and reporting losses to said transmitter, through a transmission channel having a time varying capacity, said

5 rate control method comprising the steps of:

- repeatedly raising the sending rate for probing the transmission channel until a loss is reported by the receiver,
- reporting of a fake loss when the sending rate has risen to the current capacity of the transmission channel so as to force the transmitter to terminate said probing phase.

10

7. A rate control method as claimed in claim 6, characterized in that it further comprises a step of calculating a received rate at the receiver, said received rate being an estimation of the rate at which data are received, and a step of monitoring the evolution of said received rate for deciding whether the transmitter sending rate has risen to the current 15 capacity of the transmission channel.

8. A program comprising instructions for implementing the receiver steps of a rate control method as claimed in claims 6 or 7, when said program is executed by a processor.